

The Future of St. Louis Intelligent Transportation



Illinois Department
of Transportation



EAST-WEST GATEWAY
Coordinating Council



Metro



The ITS Heart Of St. Louis

The Missouri Department of Transportation, in cooperation with its regional partners Illinois Department of Transportation, Metro and East-West Gateway Coordinating Council is currently in its second year of operating the Gateway Guide program, the St. Louis regional

intelligent transportation initiative. The Gateway Guide program is the foundation on which St. Louis' Intelligent Transportation will be built and expanded on for decades to come.

In 1994, the region embarked on a study to identify the ITS needs for the St. Louis Bi-State Region. One of the most poignant results of the study identified that 70 percent of the daily travelers on the St. Louis regional transportation system uses the 260+ miles of interstate highways and freeways. At that time in 1994, IDOT's Freeway Service Patrol was already operating in Illinois for over two decades and Missouri's Motorist Assist program just began operation in 1993. The regional partners decided from the study, that the initial build out of the ITS program should focus on freeway and incident management to support the freeway service patrol programs on both sides of the Mississippi River. The study also recommended for the Gateway Guide planners to build partnerships with local emergency agencies to help clear the roadway of incidents and to provide traveler information on the region's freeway system. The ultimate goal is to eventually cover 100 percent of all freeways in the St. Louis region.

After almost eight years of planning, design and construction of the Gateway Guide ITS program, MoDOT's Transportation Management Center (TMC) and the Gateway Guide program became partially operational in early 2002. The TMC is located at Interstate 64 and Route 141 in Town and Country, Missouri (centrally located on the Missouri side of the St. Louis metropolitan area). With small, sure steps and a solid foundation, the TMC began to establish itself as the transportation hub of the St. Louis region. MoDOT embarked on a private/public partnership with Metro Networks to operate the ITS components of the center, to help coordinate incident management on Missouri's Interstate highways and to provide traveler information on the Dynamic Message Signs, on www.gatewayguide.com, on its own traffic information hotline at 1-888 511 4STL and to the traffic media.





Media Partnerships

What has made the partnership such an early success was that Metro Networks had an experienced traffic reporting staff established in the St. Louis region. They were a very knowledgeable source of traffic and disseminator of traveler information to the local media. Metro Networks brought to the partnerships their mobile airborne sources for traffic information as well as their monitoring of all police, fire and ambulance channels.

MoDOT and Gateway Guide started to provide video to three local television affiliates for re-broadcast and to Clear Channel Radio and Mobility Technologies for traffic information. The Transportation Management Center also became the chief source of traveler information to Metro Networks and all media partners in the region where they were receiving more timely information for their traffic reports. Operators from the center started to also send emergency e-mails/text messages to dispatch centers, media outlets and DOT personnel to warn of major incidents on the freeway.

Using Dynamic Message Signs

When Gateway Guide went on line in early 2002, two dynamic message signs were activated on the area interstate highways in Missouri. Through the course of the two years, a total of eight dynamic message signs were brought on line in Missouri and three were activated in Illinois. During that period, Missouri also started to utilize ten portable message signs for incident management purposes where they could be transported to any area that does not have a dynamic message sign that requires incident information. In 2002, the portable and dynamic message signs were used over 680 times. In 2003, Gateway Guide operators placed over 5700 messages. In addition to traveler information in 2002, MoDOT and IDOT became full partners in St. Louis's local AMBER program called the St. Louis Area Regional Abduction Alert (SARAA) where the message boards, www.gatewayguide.com, 1-888 511 4STL and text-alert emails are utilized to disseminate child abduction information.



WAY TO GLOW!

Motorist Assist workers shed the red and don super-reflective chartreuse



Jeff Roberts, a Motorist Assist worker for the Missouri Department of Transportation, sweeps up debris Wednesday at the site of a crash on Interstate 70 west of Lindbergh Boulevard. Roberts said his new lime yellow uniform is more visible at night and in the rain. J.B. FORBES / POST-DISPATCH

Center Operations

What also makes the MoDOT Transportation Management Center unique in its operation is that MoDOT's established Customer Service operators are stationed within the center. MoDOT's Customer Service Representatives receive calls from the public to report problems on the states roadways. They, in turn, dispatch maintenance and traffic personnel to correct these issues.

If Customer Service receives a call in need of immediate incident response, they give it over to the Gateway Guide staff to dispatch Motorist Assist operators, the Emergency Response crews (during off hours) or call emergency agencies.

In early 2003, the Transportation Management Center and the Gateway Guide program officially became a 24-hours a day, seven-days a week operation in Missouri. At anytime in the St. Louis region, a transportation representative at the center is available to coordinate and react to any and all emergencies on the roadway with the help of their field personnel (Motorist Assist from 5 a.m. to 7:30 p.m., seven days a week with the Emergency Response crew operating during off hours). In late 2003, the Gateway Guide operations staff took on lead dispatcher responsibilities for Motorist Assist. This freed the Motorist Assist operators on the roadway (individuals originally responsible for this endeavor) to respond to more incidents and to migrate the overall operation toward a dispatched/patrolling operation.

The positive effects on regional traffic because of the Incident Management program through the efforts of Motorist Assist and the Gateway Guide program have been enormous. MoDOT partnered with the University of Missouri-Columbia (UMC) Department of Civil Engineering to evaluate the effect Motorist Assist and Gateway Guide has on St. Louis' Traffic. The first results of the study were returned on the Motorist Assist program. According to UMC's evaluation findings, Motorist Assist accomplished the following:

- A reduction of 456 secondary accidents on I-70 and I-270 in 2002
- A reduction of 188,677 Vehicular Delay hours in 2002
- Annual value of MA program estimated at \$16.4 million in quantified benefits.
- An Economic Benefit return of \$11 for every \$1 spent

Regional Partnerships

The key to the foundation of the Gateway Guide program is dependent upon the building of regional partnerships. As mentioned before, the Gateway Guide program was founded upon a regional partnership between the Missouri Department of Transportation, Illinois Department of Transportation, East-West Gateway Coordinating Council - the region's metropolitan planning organization and Metro – the region's mass transit authority.

Since 2002, more partnerships have been and are being formed to reinforce the ITS fabric throughout the region. The media, St. Louis Area Regional Response Systems (major metropolitan medical response authority), The Missouri Highway Patrol, The St. Louis County Police Department's Highway Traffic Safety Team, St. Louis County 911 dispatch centers, St. Peters Public Works, Town and Country Police Department and several others have direct connect to the center or are in the process of connecting to the center. That connectivity may be in the form of receiving camera feeds directly to their own centers, having direct radio/Nextel communications to the Transportation Management Center or Motorist Assist or even co-locating in the center.

Since the advent of the 2001 terrorist attacks, a new era of Homeland Security was placed in the mix of the regional transportation cooperation with a heavy dependence upon regional coordination in the event of a major catastrophe. In 2003, MoDOT hosted an Emergency Transportation Operations Preparedness and Response Workshop at the Gateway Guide TMC to help foster the relationships of all agencies who would react to a terrorist attack.

In early 2005, IDOT reached their own milestone in the Gateway Guide program by opening their own traffic management center in Collinsville, IL. Now two centers are working together in the region to better manage traffic.





The Foundation for the Future of St. Louis ITS

After more than ten years of planning and two years of operation, Gateway Guide and MoDOT's Transportation Management Center has become a major part of the fabric of St. Louis' transportation infrastructure. The center provides the vast majority of all traveler information to the public. For the first time starting in 2002, MoDOT began coordinating all construction and maintenance operations from the center to lessen the impact to the public, improve the work zones themselves and increase information on lane closures to the public through the media, dynamic message boards and www.gatewayguide.com.

In addition to all of the activities and accomplishments of the Gateway Guide program, the TMC serves as a community meeting and educational outreach venue for regional partners like police, fire and area transportation agencies to utilize. The center's doors are also open to all of the public to tour and learn about ITS in the St. Louis region.

In September 2004, Gateway Guide and TMC started to monitor and manage the first highway tunnel in Missouri. The tunnel is located under the newly expanded runway of St. Louis' International Airport on U.S. Route 67. In addition, the program is expanding its presence of cameras, traffic sensors and message boards on I-270 and I-70 in 2005. This expansion will close in the blind gaps of those major St. Louis corridors for incident management and traveler information.

These endeavors - past, present and future – have established a strong foundation to build ITS in St. Louis for decades to come. Gateway Guide and the Transportation Management Center have become a vital part of the transportation system management of the St. Louis Metropolitan region.